STATE OF MICHIGAN

JOHN ENGLER, GOVERNOR

DEPARTMENT OF PUBLIC HEALTH

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Vernice Davis Anthony, Director

MEMORANDUM

DATE: October 14, 1994

TO: Water Well Drilling Contractors
Local Health Departments
Attn: Directors of Environmental Health
Staff Sanitarians

FROM: Michael S. Gaber, Chief
Well Construction Unit
Division of Water Supply

SUBJECT: **Interpretation of GWQC Rule 122 - Fuel Tanks in Basements**

The Michigan Department of Public Health has been requested to interpret R 325.1622 of the Groundwater Quality Control Rules, as it relates to minimum well isolation distances from fuel storage tanks located in basements. This memorandum is issued to clarify regulatory intent, promote uniform statewide interpretation of administrative rules and provide further information on the subject.

R 325.1622(1)(a), (e), and (f) refer to "underground or abovegrade storage tank systems," but do not specifically address tanks located in basements. A fuel storage tank located in a basement is a potential source of contamination and is considered equivalent to an underground or abovegrade tank. A new or replacement well should be located at least 50 feet horizontally from a fuel storage tank located in a basement.

Several factors influence the potential of the tank to contaminate ground water. Some of the factors are listed in R 325.1622(3). These factors should be considered by the health officer to determine whether a deviation (if the minimum isolation requirement cannot be maintained due to lot size) is justified and if public health will be protected when the isolation distance is reduced. Other pertinent factors to be considered are: (1) construction and integrity of the basement floor and floor/wall juncture, (2) presence of floor drains and sump pits and location of discharge points, (3) condition of tank and associated piping, (4) location of the tank fill pipe, and (5) frequency of basement usage, should be evaluated. A solid concrete floor may provide secondary leak containment, whereas a dirt floor is obviously more hazardous. The tank may be located in an area of the basement that is visited infrequently, therefore, leakage could go unnoticed. A concrete floor may be cracked, allowing leaked fuel to enter the soil. Floor drains may terminate in foundation perimeter drains or dry wells located closer to the well site than the tank itself. Since the soil beneath the tank fill pipe is likely to be contaminated from spillage, the well also should be located at least 50 feet from the fill pipe.

Based on recent discussion of this issue with the Ground Water Advisory Committee, it appears that some well drilling contractors may not have considered fuel tanks in basements to be of concern. Contractors and sanitarians are reminded to ask property owners about the presence of basement fuel tanks. When issuing a permit for a replacement well, the permit should note the location of fuel tanks (buried, above grade, or in basement) and any deviation of minimum isolation distances from those contamination sources.

cc: Ground Water Advisory Committee
Michigan Well Drillers' Association, Inc.
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